Fig. 20. *Cylichna remissa*, p. 312.
21. *Turbo* (*Collinia*) *incertus*, p. 311.
21 *a*. —— (——) —— ; upper view.
22. *Scissurella jucunda*, p. 311.
22 *a*. —— —— ; upper surface.
23. *Kellia crassiuscula*, p. 313.
24. —— *atlantica*, p. 313.
25. *Montacuta subtriangularis*, p. 313.
26. *Crenella pura*, p. 314.

4. On the Marine Mollusca of Ascension Island.

By Edgar A. Smith.

[Received March 14, 1890.]

In the following list of forty-two species of Mollusca from Ascension Island, nine, obtained by the 'Challenger' Expedition, ought not perhaps to be included in the fauna; for, although dredged close to the island off the west coast, they were from a depth of 420 fathoms.

The poverty of this list is doubtless due to the fact that no experienced collector has ever explored the shores.

Fourteen of these species occur at St. Helena, eleven are West-African, twelve are found at the Cape Verde, Canary Islands, and the Azores, nine are Mediterranean, and seventeen, or about 40 per cent., are West-Indian forms. These figures, on comparison with those referring to the species found at St. Helena, and given in the previous report, show that the relationship of the two faunas to other regions is the same. Both resemble that of the West Indies more than any other locality, both have a considerable percentage of species common to West Africa, to the Atlantic Islands, including the Cape Verdes, Canaries, Madeira, and the Azores, and also to the Mediterranean, the causes which have effected this distribution doubtless being the same in both cases.

The three species of *Marginella* are well-known Cape forms, and therefore the question arises, whether these shells may not have drifted to Ascension on floating tangles as in the case of numerous species at St. Helena.

A few species are eastern forms, for example *Ostrea cucullata* and *Malleus regula*. Both of these, I believe, are established at Ascension. The former was quoted by Chemnitz more than a hundred years ago, and although he remarks that ships returning from China and the East Indies used to call at Ascension for water, I do not think it likely that the shells were carried there from the east. The single valve received from Dr. Conry is in very fresh condition and has not the appearance of having been rolled on the beach.

In the 'Universal Conchologist' Martyn has figured a small specimen of the well-known *Fusus proboscidiferus* of Lamarck, under the name of *Buccinum incisum*, and gives as the locality "Ascension Island, new Guinea."

I have been unable to discover the existence of any island of that name near New Guinea, although that region would be a correct habitat for this species. Perhaps "new" should read *near*, which would then clear up the doubt with regard to Ascension Island, but I very much question the occurrence of this shell in the Atlantic.

All the species enumerated hereafter, with the exception of the three species of *Marginella* and *Ianthina globosa*, are represented in the British Museum by specimens from Ascension Island. The greater part were received from Staff-Surgeon T. Conry a few years ago, and partly recorded in the Ann. & Mag. Nat. Hist. for 1881, vol. viii. pp. 430, 431.

I. GASTROPODA.

Pisania pusio (Linné).

Two specimens of this common species were obtained by Dr. Conry, which agree in all respects with typical examples from the West Indies. It has not, I believe, been noticed before from the eastern side of the Atlantic.

Columbella (Mitrella) cribraria, Lamarck.

Hab. Ascension (*Quoy & Gaimard, Kiener*).

The four specimens of this species are of a very dark or black-brown colour, and pale-spotted in the usual way. It is common at the West Indies.

Purpura ascensionis, Quoy & Gaimard.

Hab. Ascension Island (*Q. & G., Kiener, Küster*, &c.).

This species has not, I believe, ever been recorded from any other locality than Ascension Island. Two specimens sent by Capt. Turton from St. Helena are in a very worn state, and were obtained by him near the harbour at Jamestown, so, as he observes in his notes, "perhaps they are not true natives."

Purpura helena, Quoy & Gaimard.

The specimens obtained by Dr. Conry are not quite like Reeve's type of *fasciata* (a synonym of this species), having the tubercles rather more distant, the brown colour of a darker tint, and the blotches within the outer lip much more pronounced; but this may be due to the fact that none of the specimens appear to be adult.

Harpa rosea, Lamarck.

Ascension Island appears to be a new locality for this shell, which, as far as is at present known, has a limited range on the West Coast of Africa. Kiener cites "les mers du Japon" as the habitat, but this is certainly incorrect.

Ranella cœlata, Broderip.

Hab. Ascension (*Conry*).

R. pustulosa is a variety of this species.

Marginella capensis, Dunker.

Hab. Ascension (*Weinkauff*).

Other localities for this species are South Africa and Guinea.

Marginella zonata, Kiener.

Hab. Ascension (*Weinkauff*); Cape of Good Hope.

Marginella dunkeri, Krauss.

Hab. Ascension (*Weinkauff*); Cape of Good Hope.

Mitra striatula, Lamarck.

This well-known West-Indian species has not been previously recorded from the eastern side of the Atlantic. Of the two specimens obtained by Dr. Conry, one, which has lost the spiral striation through being beach-rolled, is very remarkable, and plentifully spotted with the opaque white which is so characteristic of this species. The other specimen is in fresh condition, and possesses all the features of typical examples from the West Indies. The shell figured by Sowerby (Thes. Conch. pl. 353. fig. 204) under the name of *M. barbadensis* is an immature specimen of this species.

Eulima chyta, Watson.

Eulima chyta, Watson, Report 'Challenger' Gasteropoda, p. 516, pl. xxxvi. fig. 5.

Hab. Ascension Island, 420 fathoms.

Ianthina globosa, Swainson.

Hab. Ascension Island (*Lesson*).

This species is quoted by Lesson (Voy. Coquille, Zool. vol. ii. p. 366) under the name of *I. prolongata*, Blainville.

Cypræa lurida, Linné.

Hab. Ascension (*Lister*).

Cypræa spurca, Linné.

Besides two specimens received from Dr. Conry, the British Museum possesses a third, presented by R. Trimen, Esq.

Littorina miliaris, Quoy & Gaimard.

Hab. Ascension Island (*Q. & G., Philippi, Conry, Craven*).

Planaxis lineatus (Da Costa).

Hab. Ascension (*Conry*).

Rissoina bryeria (Montagu).

Hab. Ascension Island (*R. Trimen*).

Rissoa (Setia) tenuisculpta, Watson.

Rissoa (*Setia*) *tenuisculpta*, Watson, Proc. Zool. Soc. 1873, p. 389, pl. xxxvi. fig. 28; Gasteropoda of the 'Challenger' Exp. p. 607.

Hab. Mediterranean, Madeira, Ascension Island, and West Indies (25–420 fathoms).

Rissoa (Setia) triangularis, Watson.

Rissoa (*Setia*) *triangularis*, Watson, 'Challenger' Gasteropoda, p. 611, pl. xlvi. fig. 2.

Hab. Ascension Island, 420 fathoms.

Alaba tervaricosa (C. B. Adams).

Rissoa tervaricosa, C. B. Adams, Proc. Bost. Soc. Nat. Hist. 1845, vol. ii. p. 6.

Rissoa (?) *melanura*, C. B. Adams, Contrib. Conch. p. 116.

Hab. Ascension Island (*Conry*); Jamaica (*Adams*).

The single well-preserved specimen from Ascension is a trifle more slender than any of the examples from Jamaica I have seen. It belongs, however, without doubt to this species, having the spiral striæ at the base of the whorls, and some opaque white spots in the same place as in Jamaican shells. This specimen has a single varix on the body-whorl, and its apex is not black, but this I do not regard as an essential feature.

After carefully studying the descriptions of *R. tervaricosa* and *R. melanura*, and examining a series of both, named by C. B. Adams himself, in Cuming's collection, I feel convinced that they constitute but one species. The number and position of varices is very variable, and their total absence occasionally occurs. The texture and striation are similar in all specimens, and all are white and mostly exhibit at the periphery of the body-whorl a series of opaque white dots, not mentioned by Adams, which are also visible around the lower part of the upper volutions. The apex is not constantly black, but is so occasionally, both in varicose and unvariced specimens.

Mitrularia dillwyni (Gray).

Patella equestris, Wood (*non* Linn.), Index Test. pl. xxxvii. fig. 1.

Calyptræa dillwynii, Gray, Ann. Philosoph. 1825, vol. ix. p. 407; Woodward, Man. Moll. pl. xi. fig. 11.

Mitrularia dillwynii, Fischer, Man. Conch. pl. xi. fig. 11.

Calyptræa martiniana, Reeve, Conch. Icon. vol. xi. pl. iv. figs. 13 *a–b*.

Hab. West Indies (*Woodward* and *Brit. Mus.*); Philippines (*Cuming*).

This species has the surface extremely uneven and wrinkled, and minutely radiately striated. The internal appendage is very large. I think it possible Reeve's locality may be an error. According to Hanley (Index Test. p. 183) this is *Patella undulata* of Bolten.

Hipponyx antiquatus (Linné).

This species occurs also at St. Helena.

Strombus bubonius, Lamarck.

Hab. West Indies, West Africa at Goree and Rufisque, also Cape Verde Islands.

The single specimen from Ascension Island is very like that

figured by Kiener (Coq. Viv. pl. 6), but the tubercles are rather larger and more obtuse.

Nerita ascensionis, Gmelin.

Hab. Ascension Island (*Quoy & Gaimard, Trimen, Conry, Chemnitz,* &c.); Island of Trinidad, off Brazil, and Fernando Noronha.

Basilissa oxytropis, Watson.

Basilissa oxytropis, Watson, Report 'Challenger' Gasteropoda, p. 104, pl. vii. fig. 9.

Hab. Ascension Island, 420 fathoms.

Fissurella nubecula (Linné).

Hab. Mediterranean, Morocco, Cape Verde Islands, Senegambia, Guinea.

With this species, besides *F. rosea,* Lamarck, should be united *F. ostrina,* Reeve, described without locality.

Williamia gussonii (Costa).

This species is also found at St. Helena, and has already been noticed and references given in the preceding report on the Mollusca of that Island.

Utriculus oryctus, Watson.

Utriculus oryctus, Watson, Report 'Challenger' Gasteropoda, p. 653, pl. xlviii. fig. 12.

Hab. Ascension Island, 420 fathoms.

Cylichna cylindracea (Pennant).

Hab. Ascension Island ('*Challenger*' *Exped.*).

Haminea hydatis (Linné).

Hab. Ascension Island (*R. Trimen*).

The specimens from Ascension, like those referred to from St. Helena, are all small, none exceeding 10 millim. in length.

Dentalium entalis, var. agile.

Hab. Ascension Island, 420 fathoms ('*Challenger*'); North Sea, Bay of Biscay, Mediterranean, Azores, Canaries, Gulf of Mexico.

II. PELECYPODA.

Semele cordiformis (Chemnitz).

Hab. Ascension (*Conry*).

Remarks on the distribution and synonymy of this species are given in the St. Helena Report.

Lucina (Codakia) imbricatula, C. B. Adams.

Hab. Ascension (*Conry* and *R. Trimen*).

This species is scarcely distinguishable from *L. pecten,* Lamarck. The latter is rather more finely sculptured. Both forms occur at St. Vincent's, West Indies.

Cryptodon, sp.

Hab. Ascension Island, 420 fathoms (‘*Challenger*’).

Cardium (Fragum) medium, Linné.

Hab. West Indies.

Two separate valves obtained by Dr. Conry possess all the features of this well-known form. It has not, I believe, been previously recorded from the eastern parts of the Atlantic.

Arca sanctæ-helenæ, Smith.

Hab. Ascension (*Meiklejohn*) and St. Helena.

Arca (Acar) domingensis, Lamarck.

Hab. Ascension (*Conry* and *Trimen*).

Arca (Acar) lactea, Linné.

Hab. Ascension (*Conry*).

This species occurs in the Mediterranean, British seas, West Africa at the Cape Verde and Canary Islands, and South Africa. Jeffreys has also quoted it as a Red-Sea form.

Nuculana jeffreysi (Hidalgo).

Hab. Ascension Island, 420 fathoms (‘*Challenger*’), off the Azores in 1000 fathoms (‘*Challenger*’). Off the west of Ireland, 165–1443 fath. (‘*Porcupine*’ *Exp.*, 1869); off Portugal, 740–1095 fath. (‘*Porcupine*’ *Exp.*, 1870).

Spondylus, sp.

A number of odd valves of a species of this genus were presented to the Museum by Dr. Meiklejohn, and a single valve was also received from Dr. Conry. The largest specimen is four and a half inches in diameter. All the valves are very much worn, so that it is impossible to identify them specifically. The colour is bright purple-red and the surface is covered with numerous radiating ridges, some of which, more or less far apart, are larger than the rest, and on the deeper valve appear to have been strongly nodose at distant intervals.

Malleus regula (Forskål).

Hab. Ascension (*Conry*); Red Sea and Philippines.

Two young specimens, which appear to belong to this species, is all the evidence we have of the occurrence of this species in the Atlantic.

Ostrea cucullata, Born.

Hab. Ascension (*Conry* and *Chemnitz*); Red Sea, Indian Ocean, Philippines.

Dr. Conry's specimen is in fresh condition and, although a little smaller, is very like Chemnitz's figure 679 *a* (Conch. Cab. vol. viii. pl. 74). He named this species *O. cornu-copiæ* and *O. forskålii*, the latter from Red-Sea examples.